ABSTRACT

A driver of the invention adapts to scan peripherals using information in capability descriptor provided by scan peripherals or a capability descriptor selected based upon scan peripheral model information. A driver of the invention automatically determines a scan peripheral's capabilities using information from the capability descriptor, and uses the information to configure itself from a set of driver modules. A user interface and scan job are then run through options enabled by the appropriate set of driver modules as determined by the capability descriptor. A preferred embodiment server of the invention embodies such an adaptive driver that queries a scan peripheral when it is first connected to the server. If an appropriate capability descriptor is obtained in response to the query, the capability descriptor is stored for use during a scan job. When a scan job using that peripheral is requested, user interface code extracts information from the capability descriptor to allow the user interface to dynamically change dependent upon the peripheral's capabilities as indicated by the information from the capability descriptor. Capabilities indicated by a capability descriptor might include, for example, dots per inch choices, paper sizes, color/grayscale options, image formats, and whether or not a preview scan is supported. The appropriate capabilities become selectable through a user interface at a client computer. When a scan job is directed, scan driver software/firmware uses selected parameters passed by the client and the information from the stored capability descriptor to determine an appropriate command protocol and image encoding. A set of driver modules is then dynamically linked to create an appropriate driver for the scan job.